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## ORIGINAL ARTICLES.

### SOME CLINICAL FACTS CONCERNING EYE STRAIN.\*

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It is exceedingly interesting and instructive to observe and follow the lines of controversial argument on various topics that are carried on by people of high intelligence, especially when the questions under consideration are purely theoretical, speculative or *a priori*. The extent to which such questions can be discussed by brilliant minds has no end. In all controversies the end in view is the ascertainment of facts, and where we have facts at our command, it is a useless waste of time and gray matter to theorize as to the possibility of their existence, especially in so important a field as that of medicine.

Consequently I shall approach this subject by first presenting fact in the way of clinical cases. From these facts, discussion of a problematic character, involving an effort to solve the reason for the facts will sooner lead us to an intelligent understanding. "Theories are evanescent, but facts are forever facts."

CASE I—Aged thirty-three years. Al-

ways had more or less headache, intensifying at intervals to a severe neuralgic pain, beginning in the right eye, and extending over that side of the head. Cannot remember when he did not have a chronic sore throat. Has used an atomizer daily for twenty years to relieve the discomfort and post nasal dryness. When he had taken cold, which was with every change of weather or temperature, this discomfort was so much worse that he had with it fever and so much constitutional disturbance that he was compelled to stay in the house, and have a physician's attendance.

This, with "catarrh of the stomach and bowels" that never seemed to "stay cured," made his life anything but comfortable. I knew he had careful, intelligent medical attention, for during the time I had been his family physician, for ten years, he had seen many good specialists. As to his eyes, he had myopic astigmatism, for which he had been fitted early in life. I found, in addition, a short muscle of the right eye. During one of his severe exacer-

\*Read by title at the Annual Meeting of the Pennsylvania State Medical Society.

bations of pain, ten degrees of prism gave him relief in a few minutes. Usually the pain lasted all night.

I operated April 3, 1894. Since that time he has had not only freedom from the distressing pain in his head, and all throat and stomach symptoms, but a greatly improved condition of general health, weight, etc. When I asked him what I should say of him in my present paper, he replied, "Say anything you wish, no matter how strong it may be, I can endorse it."

CASE II—Aged fifty years. When about fourteen, had the first of a series of paralytic attacks. At that time the right side only was affected, but other attacks followed, and his whole body was involved. There was first a peculiar sensation in the ends of the fingers, then pain beginning in the back of the neck, and extending over the top of the head to the outer canthus of the right eye. The tongue was cold and numb. Both sensation and motion were affected and the power of speech interfered with. The attacks came from one to three times in a month and continued from a few hours to several days at a time. She has been my patient for more than twenty years, with others consulting. She was subjected to various kinds of treatment, prominent among which were blisters applied to the upper dorsal region. These gave temporary relief, but neither blisters, electricity, massage nor internal remedies, all of which were faithfully tried, proved curative.

Two years ago I operated for exophonia of the right eye. She has only had one slight attack since, although she has been under the constant strain of caring for a sick mother, who has serious heart trouble.

CASE III—Aged forty-eight years. For many years had a distressing sensation as if a band about two inches wide was drawn tightly over the top of his head. Nearly always felt depressed, and felt such an utter inability for either mental or physical exertion that it often required a great effort to attend to business.

Was fitted with glasses by various specialists, some of them noted ones, but the lenses prescribed always seemed to make his head feel worse rather than better. Nearly two years ago he came

under my care. I was greatly puzzled over the case for a time, as it seemed impossible to bring the eyes to one point, but they finally fused under 60' of prism. I kept them for a week under all the prisms I could adjust in spectacles, and then operated on the left externus, when he first fused under 10' of prism.

A few months later, a tenotomy of the right externus relieved all his uncomfortable symptoms.

CASE IV—Aged thirty-eight years. Has always been extremely nervous, but all the symptoms gradually increased until she was so bad that she had a kind of nervous shock whenever any one approached her, and sometimes actually screamed if any one suddenly came in sight, or she heard a voice but saw no person. The lower part of her body had a peculiar sensation of weakness and loss of power. She passed very large quantities of urine and passed it very often, always having to get up several times in the night.

In December, 1895, she consulted me, a pair of "fog" glasses were put on and for the first night in many years she did not once get up to urinate. The urinary trouble really disappeared at once, but some nervous symptoms remained, and six months later she had an operation on her right eye. From this time there was gradual but decided improvement in all the symptoms until at the present time she calls herself well and says she has gained thirty pounds in weight.

CASE V—Aged thirty-one years. Three years ago this woman came to me with the following history: Comparatively well and strong until she was twenty years of age, then when climbing a fence she fell a distance of six feet, sitting violently on the ground. She was prostrated for days, and had suffered ever since with violent backache and headache, the latter increasing to a severe sick headache at each menstrual epoch. After several years, these came regularly every two weeks, and were brought on at any time by attending an evening entertainment; even a few hours in bright sunlight would precipitate an attack of severe headache with intense nausea and vomiting lasting from twenty-four to forty-eight hours. I found a displaced and congested

uterus; when this was relieved the back-ache disappeared; and the constant discomfort in the head, but there was no change in the periodic headaches. She had for two years been wearing glasses fitted by an oculist.

Over a year ago she returned to me, I then began to investigate her eyes. Both near and distant vision were imperfect, examinations showed: R. E.  $\frac{2}{3}$  at 20 feet, L. E.  $\frac{2}{3}$  at 20 feet. At the near point she could not read Snellons No. 5 at 14 inches. R. E. manifest hypermetropia, 2 D.  $\frac{2}{3}$ . L. E. manifest hypermetropia, 225 D.  $\frac{2}{3}$ . Manifest esophonia 90. Right eye plus 2 with 2' prism base out  $\frac{2}{3}$ . Left eye plus 2.25 with 2' prism base out  $\frac{2}{3}$ .

These glasses gave her normal, distinct vision, and she was able to read Snellon's type No. 1, from ten to fourteen inches. The six months she wore these she was relieved of all headaches, except those at the menstrual period, which lasted longer, often four days. Being greatly prostrated she pleaded for an operation, and after I performed a tenotomy of one eye, we found that we had secured normal vision in that eye. Two weeks later we secured the same result by operating on the other eye.

She has not had so much as a suspicion of a headache since the last operation, and has no need for glasses for distant vision. When reading I have her wear, to rest the eye, plus 1 D.

CASE VI.—Aged fifty-three years. Had suffered from early girlhood from cramps in the fourth toe of right foot, and spasm of the esophagus. Had attacks once or twice every day, sometimes (especially the cramp in the toe) lasting for many hours. The spasm of the esophagus was more likely to occur after taking food or drink, but was by no means confined to that time.

A band of muscles near the upper part, and a band near the lower part were apt to be affected at the same time, often imprisoning gases or liquids in the intervening space, and thus causing intense distress until the spasm was relieved, and the retained matters pressed either into the mouth or stomach. But, perhaps, the most intense suffering came from the toe, the pain sometimes extending to the hips, and being so great that she was obliged to remove her shoe

wherever she might be, and often had to walk from the street-car in her stocking. She often felt that she would be willing to submit to amputation of the whole foot to be rid of the trouble.

She was wearing plus 3 D. with plus 0.50 cy., for distance, plus 5 D. with plus 0.50 cy., for reading.

I increased the strength of spherical to a slight fog for distance, and five degrees of esophonia disappeared in two weeks. After wearing this for several weeks I operated.

After this she had absolute relief for many months. Then after a long and exhausting illness, on a day when she had been especially taxed mentally, she would have slight traces of the old pain.

CASE VII.—Aged twenty-five. At the age of nineteen, during his sophomore at college, after having studied hard and being "run down," had an epileptoid attack, the first coming without any warning, followed by others at irregular intervals, always at night. He left school and began light manual labor, but still the attacks came. Under the use of large doses of bromide they finally came only once every six weeks. When I first saw him, nearly a year ago, he was covered with bromide eruption. We at once stopped all medicine. The tests with prisms showed a manifest hyperphonia of the left eye. This developed at ten degrees. He wore that amount of prism four months, and had, during that time, but two attacks. These both came when the glasses were broken and he had been without them forty-eight hours.

As he was greatly averse to wearing glasses permanently, he wanted an operation. After this was done he went for four months without an attack, and greatly improved in health generally, when, after spending four days with some friends in New Jersey, taking, as he modestly admits, at least three dozen Manhattan cocktails, and smoking to excess, he had one. He is not given to intoxicants, and as that amount of unusual dissipation might give any of us an attack, like Rip Van Winkle, "he won't count that one," and he has had none since.

CASE VIII.—Aged thirty-three years. From her earliest remembrance had trouble with her eyes. Pain if they were

used much. Has worn glasses for mixed astigmatism since she was eighteen. Has also been subject to attacks of great discomfort in the head, especially in the occipital region, having a sensation as if the head grew large and then small. After this feeling passed away so much soreness remained that she could not bear the occiput to touch the pillow. For these conditions she had a variety of treatments, such as blisters over the mastoid processes, and, when in boarding school, hot baths followed by cold affusions. In spite of all, however, the attacks increased in frequency and severity, until she became very nervous. When worried or excited she would lose consciousness for a few moments or seconds. Was married about twelve years ago, and since then has had nine pregnancies, but all except the last resulted in either miscarriages or premature births. Two years ago I operated for hyperphonia of the right eye. She now wears only a 1 D. for near work.

Since the operation she has been relieved of the distressing headaches and all head symptoms, and only once since, and that now more than a year ago, has had an unconscious spell. Six months ago she gave birth to a strong, healthy child at full time.

CASE IX.—For at least thirty-five years was a great sufferer from neuralgia in the head, face, neck and chest. For some years the eyes did not seem to be affected, but about fifteen years ago began to have pain in them also, and looking in certain directions there seemed to be a mist in front of them. These neuralgic pains were almost always felt in a greater or less degree, but every month or even oftener she was confined to her bed for some days suffering intensely. She consulted many physicians (among them one of our most distinguished specialists in nervous diseases, under whose care she remained a whole year), and she tried many remedies, has had glasses fitted by several oculists, but only experienced temporary relief, until August 15, 1894, I discovered four degrees of exophonia and prescribed, in connection with the glasses she was then wearing, a two degree prism, base in, for each eye, and she has been entirely relieved of all neuralgic pains from that time to the present.

CASE X.—Age, thirty-three. Father of this patient suffered from severe headaches, and finally died insane. When she first came to me she was so nervous that I could get no history, and I will only mention a few facts of which she wrote me afterwards. She writes: "After an unusual strain, caused by writing several days, my health seemed to suddenly give way, first a severe nervous headache, then a long train of terrible nervous symptoms. I had constant pain in my eyes and head, and a sound as of rushing water in my ears. I could not think on any one subject more than a few minutes at a time. I would then feel tired beyond expression. Sometimes the nerves through my head seemed to be twitching. I could feel the pain shooting from the right eye through my head to the neck, through the shoulder down to my finger tips. A disagreeable drawing feeling through the head just back of the ears, or at the base of the brain, was nearly always present. At times I would lose control of my mind altogether. These spells would last for about an hour. The care of my child, three years old, affected my nerves in such a manner that for fear of hurting her or something worse I would scream at the top of my voice. The pain caused by moving my eyes was so great, and a bright light so intolerable, that I usually kept my eyes bandaged. When I came to you I had been in this condition many months. I had been fitted with glasses for two years before I became ill."

I had much trouble to keep the patient quiet long enough to make my tests. Her movements were constant and seemed choreric. This, with her intense dread of opening her eyes, made it very hard. However, after I succeeded in placing 10° of prism for hyperphonia; she was much relieved. Two days later after the first operation all the nervousness abated.

In the next two weeks I operated on the internal recti, after which her condition seemed entirely normal. At this time she returned home looking bright and happy, a great contrast to the thin, haggard, melancholy little woman who came to me. Six months later she wrote "I have improved right along since the operation. No trouble now with the drawing pains in my head, no trouble with my mind at all. I can use my eyes



for sewing, writing, etc., more now than at any time since I began to wear glasses three years ago. I weigh more than I ever did, having gained over twenty pounds since I saw you."

CASE XI.—Aged thirty-nine. As this was a hospital case I quote some brief extracts from the records. "Admitted October 4, 1895. About five years before began to have pains in the loins and back, so severe as to incapacitate him for work. This continued for two or three years when he noticed that he passed an abnormally large quantity of urine, sometimes it was passed every hour, and at times retained many hours. These and other symptoms, among which were very severe attacks of pain, had led to the belief that he had stone.

On admission he walked with great difficulty, leaning heavily upon his cane. Legs were stiff and not well controlled, toes dragging somewhat, reflexes increased. These symptoms were more prominent on the right side. Hearing was very imperfect in both ears, but he was the more deaf in the right ear. A watch could only be heard faintly when pressed to the meatus. Soon after his admission he was etherized and thoroughly examined for stone, but none was found. He then came under my care. His eyes showed the following condition: Hypermetropia plus 2.50 D. Manifest hyperphonia L. E. 5' latent. 25' esophonia R. E. manifest 5'.

As soon as he was wearing 20' prism vertically there was a marked change in his mental condition. At first he seemed sullen and stupid, and it was with great difficulty that I could get him to understand and reply to my questions. Now he took great interest in the tests and replied promptly, easily extended his formerly cramped stiff fingers and said he had no longer pain in his back and limbs.

I then operated on the short upper muscle. Again I quote from the records. "October 21, eye sight improved in regard to distance. Hearing very much improved. Watch now heard plainly in the more deaf ear eighteen inches from meatus. Walking somewhat improved, but still uncertain; not much control over flexors. Urine in all ways normal as to manner of passing, number of urinations daily, quantity, etc."

I was much interested in this case and very anxious to continue the treatment, but he was a township ward a hundred miles away and no one to pay for him further. I had him but four weeks when he was removed, and I have not heard from him since.

CASE XII.—Aged eleven. This lad came to me a year ago for stammering. I gave him instructions for breathing, gymnastics, at the same time finding him hypermetropic with esophonia. I put on him plus 2 D to fog his vision and 10' of prism. There was very little improvement in the next six months. I then operated on the short muscle, and at the end of another six months wrote asking his teacher to report his condition. Received the following reply: "We see a wonderful improvement in George. At the beginning of the time it was almost impossible for him to recite, as he could scarcely say plainly two words in succession. We tried different ways of having him recite, but it did not help him in the least. We began to think the effort was an injury to him, but after the operation was performed we began to notice an improvement, and he has continued to improve gradually until he can read and recite with no hesitation whatever. It seems to have encouraged him so much, and he is doing better in all his studies."

CASE XIII.—Aged thirty-three. When five years old this patient had measles. The eyes were blind for several days. He was taken to a London Hospital and told that his eyes were "turned round," but that if he had glasses he would grow out of it. For some reason no attempt was made to fit him. He always had trouble in school, could not see what was on the blackboard, or study his book with satisfaction, and he was glad when at the age of twelve he was apprenticed to learn the trade of a furniture finisher. It was still difficult for him to see unless he had a very bright light, and was very close to his work. As time went on he developed intense photophobia, and was obliged to wear a shade to shield his eyes and in fact often walked by touch rather than by sight. Even then about once a week had such severe burning pain in his eyes that he was obliged to give up work and lie in bed for a day or two.

When about twenty-three he came to this country and consulted eye specialists, (seven in all). One gave him glasses which he wore for nine months, but his eyes seemed worse than before. He became discouraged and returned to England, where he spent six weeks in a homeopathic eye hospital, and a month at Moorfield Hospital, London. Various tests and examinations of the eye were made, and glasses prescribed. Those they gave him at Moorfield he was able to wear about an hour at a time, and then remove them to rest his eyes.

The prescription was: R plus 2 D, with plus 5, 50 D cyl. axis val.  $\frac{1}{4}$  L. plus I, 50 D with plus 5 D cyl. axis val.  $\frac{1}{4}$ .

After two years he threw them aside and tried other oculists. Mydriatics

were used and ophthalmic examinations made, but he obtained no relief.

In August, 1894, a Williamsport optician sent him to me. He came hoping an operation might relieve him. There was hyperphonia of the right eye, and esophonia of both eyes. At intervals of two weeks the needed tenotomies were made. The burning pain was gone, he looked far or near with ease. He has worked steadily ever since, with no return of any uncomfortable sensations.

CASE 14.—Aged sixty. Frequent analysis showed this patient had had for more than a year albumin tube casts (large and small). Three months after an operation for exophonia the most careful microscopical tests, (at home and in New York) discovered not the slightest trace of albumin or casts.

I present this case without comment.

#### PRIMARY CARCINOMA OF THE PANCREAS, AND SECONDARY CANCER OF THE LIVER WITH DIFFUSE PARENCHYMATOUS NEPHRITIS.\*

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**HISTORY.**—The patient, A. H., is aged sixty-one years, a merchant by trade and resides in Amesbury. There has been nothing particularly worthy of note in the family history; no cancer on the part of the ancestors so far as can be found. His personal history gives no light. He had been a man of steady habits; if he has indulged somewhat the past year or two in alcoholics, it was on account of gradually progressing ill health, and the imperative need of a stimulant. For somewhat more than two years he has been ailing, the predominant symptoms being referable to the digestive organs. There was gradual and finally complete loss of appetite, marked indigestion, constipation, failing strength; not much emaciation.

He came finally under the care of Dr.

Cooper, who detected an enlarged liver, with severe fermentative dyspepsia, vomiting shortly after eating, bowels obstinately constipated and hardly moved by powerful cathartics, which were not well retained. About September 20, 1896, he began to have severe pain at epigastrium, and hypodermatics of morphine were daily employed. I saw him first about October 21st. He had begun then to be jaundiced. The epigastric pain was a marked feature. The tongue was thickly coated; there was fetor of the breath, while the urine was of a deep wine color, and displayed the chemical reactions of bile. Vomiting had become almost constant. All nourishment was loathed.

Examination revealed a very large liver. Though the abdominal muscles were tense, I could, nevertheless, detect the lower margin of the liver a hand's breadth below the lower ribs. To the left it extended six inches beyond the

\* A clinical lecture delivered at the College of Physicians and Surgeons, Boston.

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middle lines. The liver dullness extended above to the nipple and even somewhat higher. It seemed as though the right chest contained little but the liver. I could not detect any tumor at the pylorus, superficial or deep pressure.

Diagnosis.—Massive cancer of liver, probably primary.

I saw Mr. H. again, October 25th. The symptoms were all worse. The jaundice had deepened, and he was "yellow as saffron" all over the body. The abdomen was now tympanitic. The doctors in attendance had been giving a great variety of medicines. He had been dosed with blue mass, calomel, podophyllum, taraxacum, potassium, iodine and glaubers salts—all with the view of doing something for that large liver. These were now discontinued. Panopeptone and other predigested foods were prescribed, and glycerine to regulate the bowels. His condition was most unpromising.

On Monday of last week hemorrhages set in; at first nasal, then intestinal. These continued, weakening him very much. On Thursday he had a stool containing a pint of fresh blood, and died a few minutes after.

The autopsy showed a greatly hypertrophied liver stuffed full of cancerous nodules, but the primary disease was in the pancreas, which was in the main converted into a scirrhus tumor.

It is a typical case of primary cancer of the pancreas. Cancer of the pancreas is generally limited, occupying the head of the organ. It presents itself under the aspect of a tumor of variable size, as large as an egg or the closed fist, and is more or less knobby. Sometimes there are little nodules disseminated through the organ. In the parts not invaded the pancreas may be sound or indurated, sclerosed and shrivelled; cystic dilatations consecutive to obliteration of some of the ducts are common. The organ is sometimes of a wooden hardness. It is generally adherent to neighboring organs, particularly the stomach and duodenum. The ductus communis choledochus is generally compressed by the growth and this entails jaundice.

There was in this case another cause of jaundice—the pressure of a new

growth in the hilum of the liver by which the portal vein as well was compressed, and the cystic duct was so far obliterated that there was immense dilatation of the gall-bladder which was full of dark bile, and contained some clotted blood.

A part of this pancreas not affected by the cancer has undergone fatty degeneration. Often cancer of the pancreas is secondary to cancer of the stomach. In this case it was primary.

Cancer of the pancreas seldom can be known with certainty by its symptoms. A man or woman past middle life is affected with loss of appetite, indigestion, and general enfeeblement. Pains at the epigastrium sooner or later appear. Jaundice generally supervenes. Very rarely you can feel an elongated horizontal tumor in the epigastric region. The patient becomes emaciated, has marked cachexia; succumbs to hemorrhages or to vomitings. The jaundice is generally due to the fact that the common bile duct passes through the head of the pancreas before it ends in the duodenum. Your anatomy tells you that before it perforates the intestines it is covered by or included in the head of the pancreas. Consequently when the head of the pancreas becomes scirrhus mass (as in the specimen) the ductus communis is obliterated by pressure, and a most obstinate and permanent jaundice results.

The pylorus in this case was bound down by inflammatory adhesion originating in the head of the pancreas, and, though not completely occluded, was so in great part. Hence there was stasis of food products in the stomach and considerable dilatation of that organ. Cancer of the pancreas generally lasts but five or six months. It goes on rapidly to a fatal termination.

Cancer of the liver is observed either as a primary or secondary affection. I have seen two or three very marked cases of primary cancer of the liver. Primary cancer of the liver is generally massive cancer, the organ becoming immense, sometimes filling almost the whole abdomen. It is often smooth. The most of the substance of the organ is occupied by a grayish or yellowish neoplasm, of uniform color and consistence, and the entire glandular apparatus is destroyed.

Sometimes the primary cancer is nodular, and the liver is stuffed with cancerous lumps in size from the head of a pin to a large orange.

The cancer of the liver with which we have to do to-day is a secondary growth. Cancer of the liver is very apt to follow cancer of the stomach, pancreas, or intestines. Secondary cancer is a nodular cancer. The nodosities are formed by implantation; the cancer germs are brought by branches of the portal vein. We see the liver invaded by circumscribed tumors constituting nodules. The liver is more or less enlarged. We find disseminated through the organ little nodules from the size of a pin head to that of the head of a fetus. These nodules are grayish or whitish. The smaller ones are hard throughout, while the larger ones are found to have softened in the centre.

In cutting into the liver we find that its substance is stuffed full of these little islets, round in shape. The periphery is of firmer consistency than the centre, which is often diffuent. You often find a reddish-gray, pulpy mass in the centre of the nodules; new tissue broken down and softened. Sometimes there are hemorrhages in connection with these

nodules. The blood breaks into the hepatic tissue and infiltrates it to a certain extent. We saw this in the case under consideration. The gland tissue in immediate continuity to the nodosities is the seat of a vascular injection which gives a deeper coloration to the tissue. The parenchyma not occupied by the cancerous tissue taken on the grayish tint peculiar to fatty degeneration, viz: The cancerous nodules are also prone to undergo granular fatty degeneration.

The kidney is undoubtedly a Bright's kidney disease, belonging to the category of chronic Bright's disease. It is probably a kidney undergoing chronic degeneration. This condition is produced by long continued disturbances of the circulation, or by causes which seriously impair the general health. The kidneys are considerably increased in size. Their surfaces are smooth; the cortical portion is thickened and pale in color, the cortex is probably affected by fatty degeneration. These changes do not necessarily much alter the composition of the urine. The patient's urine was examined a short time before death and the report says there was no albumin or sugar.

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#### VENESECTION.\*

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In consequence of the unwarrantable disuse of the lancet as a remedial agent, the subject of this paper, to my mind, becomes an important matter for unbiased consideration and discussion. It is an indisputable fact that no science has made greater progress within the last century than has medicine and surgery, embracing, of course, gynecology and the kindred sub-divisions. This progressive spirit has not been confined alone to the armamentariums of the physicians and surgeon. Theoretically, the profession has accomplished prodigious and unprecedented scientific results. Old

theories, once entertained and advanced as plausible and conclusive, have been consigned to a merited oblivion as false and misleading. This rejection of erroneous theories and practice, and the discovery and adoption of new and scientific methods, constitute the all-important factor in the elevation of the medical profession to its lofty position in the scientific world to-day. And, while this commendable advancement elicits the most profound admiration, we cannot but deplore the rejection, or rather the disuse, of some of the old remedial agents, the potency and efficiency of which we still recognize and admire.

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\* Read before the College of Physicians and Surgeons of Columbia, Pa.,



Among such remedies, the lancet—that good, old friend that has helped us out of many a difficulty, and has saved the lives of thousands—must be classed. The efficacy of venesection in acute inflammatory diseases of a sthenic character, is not doubted by those who have resorted to the remedy in the past, nor can this be effectually disproven by its opponents. Who, among the older members of the profession, cannot distinctly recall the promptness with which the hurried and difficult respiration in the first stage of pneumonia or pleurisy was relieved by a vigorous blood-letting? I would not pretend to deny that these two diseases are, evidently, of their infection, bacterial in the character; and yet, I insist, that, whether such or not, the prompt relief of the distressing symptom of dyspnea in the incipency of these distressing affections by venesection, is indubitable evidence of the utility of the remedy. We must not fail to recognize the necessity of employing *veratrum viride*, *digitalis*, *strychnin*, and *belladonna* in the after treatment of pneumonia; nor should we undervalue the use of antipyretics, and the judicious use of the cold compresses, recommended so highly by Gundrum.

Still cases can be recalled in which the depressing effect of the several antipyretics on the respiratory and cardiac motor centers called for their immediate discontinuance. In the advocacy of the lancet in the first or congestive stage of pneumonia and pleurisy, when the blood-vessels ramifying through the lungs are engorged with a superabundance of blood, my purpose is to endeavor not to detract from the efficacy of proper drugs employed at the proper time. When the lancet is used freely in the acute formative stages of pneumonia and pleurisy, occurring in robust and vigorous subjects, free from enfeebled, cardiac complications, it will often cut short, and sometimes even abort, the disease.

Some time ago I had occasion to meet a brother physician in the first stage of a typical case of pneumonia. The patient was suffering intense pain; the respiration was rapid and laboring; the pulse full and bounding; the face flushed to a livid hue, and altogether he was a picture of distress. As the young man

was of a robust, vigorous constitution, I immediately suggested venesection. My colleague was horrified; said he “never owned a lancet, and never proposed to use the antiquated, barbaric instrument;” but, continuing, he said, “if *you* assume the responsibility, go ahead.” I bled the patient freely, and, in a very short time, we had the extreme satisfaction of seeing him breathe easily, with scarcely any pain. We followed the bleeding with further antiphlogistic, nutritive and expectorant treatment, and, in a comparatively short time, the young man was well. Who can doubt that the liberal abstraction of blood in his case was instrumental in aborting the attack of pneumonia?

How often have we seen the salutary effect of a thorough bleeding in apoplexy! It requires careful discrimination as to the applicability of the lancet in these cases. A patient with a weak and irregular pulse, a pale countenance and feeble heart action—in fact, every symptom denoting anemia of the brain, with perhaps serous effusion, should not be bled—since bleeding would still further debilitate the heart’s impulses, and the amount of arterial blood going to the brain would thus be still more decreased. But I am a firm advocate of the lancet in cases which are characterized by stertorous breathing, flushed face, full, bounding pulse, with violent action of the heart—or in other words whenever the condition of the patient denotes a robust, plethoric habit. Niemeyer says: “If the impulse of the heart be strong and its sounds loud; if the pulse be regular, and no signs of commencing edema of the lungs exist, we should bleed without delay. Local bleeding by leeches behind the ears, or to the temples, or by cups to the back of the neck, cannot replace general bleeding, but may be used as adjuvants.”

What substitute is there at command to take the place of the lancet in the onset of puerperal peritonitis? Fortunately, true cases of this formidable and dangerous disease are rather infrequent in private practice, but, yet, they do occur. If in such an attack the first twenty-four hours have been allowed to elapse, the use of the lancet, in the majority of cases, would be injurious instead of advantageous. The lancet

should be used early and as a rule eighteen to twenty-four ounces of blood should be taken from the arm in a full, flowing stream, or until the indications of approaching syncope appear, the patient being in a partially erect position during the bleeding, in order that the desired effect upon the system may be produced so speedily as possible.

In convulsions, superinduced in adults by reflex, or sympathetic action, copious venesection is most efficient. Thirty years ago I was called to see a butcher weighing two hundred and fifty pounds. He was writhing in the most horrible convulsions, and inquiry revealed the fact that he had eaten at least a pound of garlic sausage, freshly made, for dinner. The urgent indication in the case was, of course, to unburden the stomach; but to administer an emetic under the circumstances was an utter impossibility. Then, again, to allow the continuance of the convulsions involved the danger of a rupture of the blood vessels of the brain; therefore, I immediately bled him, taking about twenty ounces of blood from the arm. The convulsions ceased almost immediately. A brisk emetic brought forth the garlic

sausage, and the man was well, and soon devoted his attention to the slaughtering of *the other hog!* Bleeding, in that case was, certainly, "the right thing in the right place."

But it is probably in puerperal convulsions that the lancet is of most avail. Ramsbotham says: "A convulsive paroxysm during labor may occur under two extreme states of the system, diametrically opposed to each other; the one in which the cerebral vessels are inordinately distended with blood; and the other, when they have been drained almost empty, as in the case of excessive hemorrhage; and it is a curious fact that the two perfectly opposite states, viz., too great a fullness of the vessels, and too great emptiness, will produce, in this respect, exactly the same phenomena." Yet, whatever may be the objections advanced against the use of the lancet, it is the only sheet-anchor in this frightful disease. Nor should it be used with too great caution in a case in which it is not contraindicated by previous exhaustive hemorrhage, so much as sixty ounces may be required to be taken in a very few hours.<sup>1</sup>

### ENTEROLITHS.\*

W. C. PHELPS, M.D., BUFFALO, N. Y.

The enterolith is a form of stone formed very rarely in the human being, but is quite common in the lower orders of animals, especially domesticated ruminants and solipeds. They are found in both the large and small intestines, though most frequently in the cecum. When found in the small intestine, they are most frequently found in the lower end of the ileum. They are of different colors and texture, depending on the material of which they are composed.

The most usual variety has the appearance of stone, is quite heavy, of light color externally, but when viewed on the end, or when section is made, it

is seen that they are made up of layers of light and dark material arranged alternately. The chemical constitution is given by Aberle, as follows: Water, 22; phosphate of lime, 60.5; phosphate of magnesia, 4.3; sulphate of lime, 1.1; extractive matter, 0.3; organic constituents, 11.3. The one I show you is above the ordinary size, being 10 cm. in circumference, and was probably formed in the cecum. They are generally single, though as many as thirty-two have been evacuated. Instead of being round and oval in this instance they have facets as we find on gall-stones when many are crowded together in the gall-bladder.

Enteroliths, as a rule, are very slow in forming and do not occlude the intes-

\* Read by title at meeting of Buffalo Academy of Medicine, December 1, 1896.

tines. Sometimes, however, that occurs and is followed by perforation. In most cases grave trouble in the abdomen occurs, such as pains of a colicky nature, diarrhea, alternating with constipation, intestinal indigestion leading to emaciation and hypochondriasis. Generally a tumor can be felt or at least a painful point on pressure, which may suggest cancer, the formation of pus, or, if in the region of the cecum, appendicitis—and in fact the last-named condition has been present in some reported cases.

The patient who passed this stone is of middle age, and was formerly of robust health, and of quite full habit. In 1890 she was suddenly taken very ill with what at that time would be called inflammation of the bowels, a term, however, that is fast passing away since we know more of its pathology, and terms are now used which convey to the mind something of the nature of the disease present. There was great pain, tympanites, constipation and fever, and on the right side over the ascending colon a circumscribed point of dullness with some induration.

Dr. Mann was called in consultation and suggested the propriety of making an exploratory puncture at this point with a large hypodermatic needle. The patient and her friends objected and the exploration was omitted for the time being, to be subsequently made if no im-

provement occurred. The next day she was better, and in a few days the swelling and tenderness had disappeared. Convalescence was uninterrupted, and in four weeks from the beginning of the attack she considered herself in her usual health. This severe disturbance was followed by occasional slighter ones, which I considered the result of intestinal indigestion, as she was a very hearty liver.

In April, 1894, she sent for me to show me this bowel stone, which she had passed after one of her attacks of pain and diarrhea of about the usual severity. I have not the slightest doubt that this was the cause of the first attack in 1890 and also of those which followed it. For some months she was free from any of her old trouble, but for the past few months she has again begun to complain as before. Whether another stone is forming I, of course, cannot say, but it may be so, and the probability is that it is so.

I have not seen in my reading any suggestion of prophylactic measures, and have not, therefore, adopted any. This condition must be rare, as I have shown this stone to several of my medical friends, and have not as yet found any who have ever seen one, or to their knowledge had a patient whom they suspected of having enterolithiasis in any of its forms.

## COMMUNICATIONS.

### CLINICAL EXAMINATION OF SPUTUM\*

JAMES I. JOHNSTON, M. D., PITTSBURG, PA.

In the last few years the microscopic examination of the sputum has become of prime importance to our patients as well as to ourselves. Since pulmonary tuberculosis, which one cannot but believe is curable in its incipient stage, kills more patients than any other disease, should we not insist as much on the examination of the sputum for suspected phthisis, as we do on the thorough

examination of the urine for suspected nephritis?

The macroscopical, gross, or unaided ocular examination of sputa, should never be neglected, if possible. Patients' statements in this regard are often misleading, and, beside, to the trained physician, the objective signs are the more reliable, and generally influence more his treatment.

I. When the sputum is thin, light

\*Read before the Allegheny County Medical Society.

in color, and even streaked with blood (usually scanty), it is called mucoid, and should suggest an acute inflammation, except, perhaps, in asthma, where mucoid sputum is seen—the blood is present only in the severe cases. The frothy, watery sputum of pulmonary edema would properly come under this class.

II. As acute inflammations of the respiratory system tend to heal, to become sub-acute or chronic, the sputum becomes thicker, yellow, more viscid and abundant, and is usually spoken of as muco-purulent. The sputum of convalescing acute bronchitis, pneumonia, chronic bronchitis and phthisis is familiar to all of us. Among the rarer forms of pulmonary affections in which this form of expectoration is found, are malignant growths in the lungs and actinomycosis—this later can only be distinguished from chronic bronchitis by the microscope (finding the fungus). With the exception of chronic bronchitis, occasionally, the above two forms of sputum rarely have any odor.

III. Purulent sputum consists almost entirely of pus, and is slightly tenacious, yellow or green in color, fetid, and is periodically abundant. It is seen in phthisis with cavity, bronchiectasis, and would be present in abscess of lung and rupturing empyema. In hospital practice, before pulmonary tuberculosis was excluded, this periodic expectoration of purulent sputum was not an uncommon sight, for many patients did not come into the wards until late in the disease, when cavities were present.

IV. Rusty and tenacious sputum always suggests croupous pneumonia, although this disease may be present without this usually characteristic sputum. This is especially true in croupous pneumonia complicating typhoid fever, and hence this condition of the lungs is frequently overlooked. It is also true in the croupous pneumonia of children and old people.

V. Again, in severe adynamic cases of croupous pneumonia, the sputum may be thin and dark colored, when it is aptly called prune-juice sputum. I have seen this a few times—once in a double croupous pneumonia complicating typhoid fever which rapidly proved fatal. It is said to be due to blood retained in

the lungs, and occurs also in gangrene and cancer of the lung.

VI. Nummular sputum (so called from its coin shape) consists of round, flat, heavy masses, which sink in water. This is commonly seen in advanced phthisis.

VII. Other forms are sputum containing fibrous masses; currant-jelly sputum (said to be indicative of cancer); and fetid sputum, occurring in bronchiectasis, phthisis, gangrene, abscess and occasionally in chronic bronchitis—this last separates into three distinct layers on standing.

From the rapid survey of the macroscopical appearance, we turn to the second and more important division of our subject, viz., the microscopical examination of sputum.

I. Before the work of Koch in tuberculosis, the finding of elastic tissue in the sputum was considered good evidence of phthisis, and indeed, some clinicians still lay stress upon its diagnostic properties, but this should be no criterion with our present knowledge. It indicates destruction of lung tissue, but may be due to other causes than the tubercle.

It is examined as follows: The night sputum is treated to an equal part of a (twenty gr. to the ounce) solution of caustic soda and boiled. So soon as it boils add about five times the amount of cold distilled water, and allow to settle. The sediment is then examined under low power, as for tube casts in urine. Yellow elastic strings can then be readily seen.

II. In the sputum of asthma, and it is said also in that of croupous pneumonia occasionally, are seen spirals, named for Curschman, who first described them, which are probably molds of the finer bronchioles, and are formed of mucin. Also in asthma are seen transparent octohedral crystals called Charcot-Leyden crystals. These show well under the microscope, and are found during, and immediately after the paroxysms—their true significance is, I believe, unknown. The Charcot-Leyden crystals are found also in leukemic blood.

III. Crystals of fatty acids, and hema-toidin are seen in gangrene, abscess and cancer, and indicate altered blood.



IV. But the foregoing are all of minor importance to the examination of sputum for the tubercle bacillus. As Osler says, in his article on tuberculosis, and it is printed in italics: "The presence of these bacilli in the sputum is an infallible indication of the existence of tuberculosis." It is, then, the duty of every practitioner, as soon as phthisis is suspected, to examine or to have examined, the sputum of his patient. If found in any abundance, the diagnosis is certain—"There is no appeal beyond Cæsar."

There are quite a number of methods for staining the bacilli in sputum, but the following seems to me the simplest and easiest for the busy practitioner. It is a slight modification of the one taught in the laboratories of the University of Pennsylvania, a few years ago, and is, as remarked by an hospital interne, in an institution in which this method is followed, one you can almost be careless in the use of, and yet get results.

A small flake or particle is selected from the specimen to be examined, and either teased or spread out on the cover glass, or perhaps better, pressed between two cover glasses, which are then separated and allowed to dry. This is then fixed by passing the cover glass a few times through the flame which coagulates the albumin. The solution of carbol-fuchsin (1—fuchsin, 10—alcohol, 100—of 5 per cent. solution of carbolic acid), is dropped upon the specimen on the cover glass, which is held over the flame until fumes are seen to rise. The cover glass is then washed with water which removes the excess of the solution, and then placed in a 5 per cent. sulfuric acid solution until the cover shows a faint pink. The counter stain is an alkaline solution of methyl blue (Löffler's), which is then added and allowed to remain for about thirty seconds. The slide is now washed in water, dried between filter papers, mounted temporarily in glycerin, or permanently in Canada balsam, and examined. This requires a one-twelfth oil-immersion lens for satisfactory work, when the bacilli, if present, are seen stained red, while everything else in the field is stained blue. The tubercle bacillus is rod-shaped, slightly curved, about one-half the diameter of a red blood

cell (which is 1,3000 of an inch) in length, with rounded ends and occasionally beaded in appearance, possibly due to spores. Its characteristic in staining is that it resists the acid differentiating solution which affects all other tissues, and hence by contrast stain we are able to see it clearly.

The thinner the film of sputum, and the more complete the differentiation, the better slide we will have for examination.

The greatest obstacle to the ready use of this examination is the possession of an oil-immersion lens, on account of its expense. The absence of bacilli in one examination should not exclude the possibility of tuberculosis, but a second and even third examination should be made. The association of this bacillus with tuberculosis is beyond doubt. Since advanced by Koch, of Berlin, some twelve years ago, little has been added to, or taken from, its significance.

V. Another micro-organism in the examination of sputum, of some importance, is the diplococcus pneumoniae of Frænkel. While this organism is often found in the sputum, even in health, it is said to be present in all expectoration of croupous pneumonia, and is now considered the cause of the disease, making the croupous pneumonia an infectious disease. In all the specimens from patients suffering from this disease, which I have examined, diplococci have been abundant. Of course the other signs and symptoms help us in the diagnosis of this disease, yet I think it is worth while looking for the bacillus, although the number present in a specimen is hardly indicative of the severity of the attack. The diplococci can be readily stained by adding to the dried sputum, a solution of methyl blue, when, under a moderate power, they can be seen readily, in pairs, surrounded by a capsule, hence called diplococci.

From what has been said, it is apparent to us all, that the examination of sputum, both macroscopically and microscopically, is of the utmost importance, especially the latter, for the tubercle bacillus; and that in clinical diagnosis it plays a part second to none, not even to the examination of the urine of albumin and casts, nor of the blood for anemia or plasmodium malarie.

## DISCUSSION.

DR. W. S. HUSELTON.—As I understand the paper, whenever the tubercle bacillus is found the diagnosis should be considered settled. This may possibly be true. I would like to ask if tuberculosis could not exist and the diagnostician be unable to demonstrate the presence of the bacillus in the sputum? And also, at what period of the disease the bacillus is first found?

DR. S. L. MCCURDY.—I should like to know whether in his examinations of sputum Dr. Johnston has found the streptococcus? I have observed in recent literature on this subject, that the streptococcus is found in almost all of these cases, and that the purulent, tough, tenacious sputum which is found, and which is given off from the lungs, contains the streptococcus as well as the tubercle bacillus, and that the former is the cause of the tough mucus.

DR. E. B. BORLAND.—Tuberculosis and diphtheria are two common diseases which we have had demonstrated to us as caused by special germs. If we depend entirely upon the microscope for our diagnosis of these diseases we shall make a mistake. I do not think that we should always base a positive diagnosis on the fact that there may be a few tubercle bacilli, or a few Klebs-Loeffler bacilli, in the sputum or throat secretions of a patient. It seems to me that it has been pretty thoroughly proven that either of these germs may be present, and yet the patient be free from the specific disease. These germs may be found in the sputum of persons who are not suffering from any disease, and this fact is especially true of the residents of cities. These bacilli may be found in the majority of throats, in certain seasons of the year, at least. The presence of a few of these germs does not, to my mind, always carry with it anything like any absolute diagnosis.

It seems to me that we should distinguish between cases where there are a very few of these germs, in a limited area, and where there are large numbers of them. A moderate

attack of simple acute inflammation in mucous membrane has a tendency to destroy the few germs which are frequently found there, and it is well known that the normal secretions are the germicides.

Bacteriologists should, if possible, draw a line between a few isolated germs of questionable activity, and the hosts of virulent germs which are the specific causes of some, but not all, diseases. Until this is done the clinical is still the more reliable diagnosis.

DR. TURNBULL.—The method of staining which was described to-night is probably the best method now in use; the one thing to bear in mind is that the stains must be fresh, entirely fresh. A stain several months old is almost useless. The Loeffler's blue (the alkaline methyl blue) becomes useless in a comparatively short time, so it is evident that our solutions must be frequently renewed, or else you will not be able to secure the desired results. The alkaline methyl blue will change to a pale green. We must also be very careful where we purchase the prepared stains, because they may have laid on the shelves for a number of months before the date of purchase, and be comparatively worthless. The carbol fuchsin stain becomes practically worthless in from four to six months. It should be renewed at least twice a year.

DR. J. H. HOFFMAN.—I am glad to have Dr. Turnbull mention the weakening of the solution with age. I never heard it mentioned of the red stain before, but I have heard that it improved with age, and that the older the stain the better the results. I have been using my present solution for a number of months, for nearly a year, and it has seemed to me lately that I have had great difficulty in producing satisfactory results, and I had about made up my mind to throw it away. I use a much stronger acid solution for bleaching than the 5 per cent. solution which the doctor mentions. I use about a 15 or 20 per cent. solution. My present solution bleaches out and scarcely shows any red stain at all, and leaves the matter of investigation as much in doubt as ever.

## CURRENT LITERATURE CONDENSED.

The Diagnosis and Treatment of Speech Defects.<sup>1</sup>

The author exhibited a little boy who had been cured of stammering. After discussing the importance of speech as a factor in mental and physical development, the possibilities of its improvement and the complexity of its mechanism, he said that with our present limited knowledge any classification of

the defects of speech is difficult to make, but they may be divided with reference to their causes into two general classes, namely, those of cerebral and those of peripheral origin.

He then cited from his note-book three cases to illustrate how difficult it is oftentimes to determine the exact cause, one case, a boy nineteen years of age, with arrested development of speech, and the others two stammerers. It was supposed that the first case was of cere-

<sup>1</sup>Dr. G. Hudson Makuen before the Pennsylvania State Medical Society.

bral origin, but both the first and second cases were cured completely by simple operations, the first by the division of the anterior fibres of the genio-hyoglossus muscle, and the second by the removal of adenoid vegetations. This patient was exhibited to the society. The third case was still under treatment directed toward the reduction of the size of epiglottis.

He said he would operate for defects of speech only when there are structural peculiarities or pathologic conditions interfering with the normal action of the organs. He thought even slight obstructions sometimes cause trouble and should be removed, especially when they are found in children. They interfere mechanically or reflexly through the nervous system, but more often in both ways. After these irregularities have been corrected and obstructions removed, the faulty habits of speech must be broken up by appropriate exercises. Only those having made a special study of speech can do this successfully.

He said no definite rule can be laid down as to the special kind of training—the exercises must be adopted to the case—they must develop undeveloped muscles. He closed by saying that many cases have been supposed to be of cerebral origin and incurable, which were in reality due to some slight abnormality in the peripheral organs, which if detected could easily be remedied and he urged the necessity of greater care on the part of the profession in the study of these cases.

#### **The Pathology of the Blood in the Insane.**

Insanity is a disease of the physical system. Owing to our ignorance of the minute structure of the encephalon and its physiology and pathology, the principles of psychology and psychiatry are arranged still on functional lines. The tendency of the times is to develop the principle that every function has a physical centre, and that every derangement of function is due to morbid change of such physical centre, or else to some pathologic interference with its relations to certain parts.

Acute insanity is always associated

with derangement of one or more parts of the physical system. Examination of the dejecta and secretions often makes this plain enough. The exterior of the body shows symptoms of wide spread disease which the experienced alienist makes note of. Disturbance of the mind is only too commonly accompanied by disturbance of the digestive functions. Careful analysis of the urine of over five hundred cases of insanity reveals pathologic changes in this fluid in a large proportion of cases. In all forms of insanity there is physical waste as well as deterioration in the acute stage, and in the chronic condition as well, though such change is modified to some degree in the latter by an improvement in the physical condition at the close of the acute period.

Pathologic changes in the blood are some of the physical symptoms of the mental disorder, primarily or secondarily. There is a tendency to very close coagulation after withdrawal of the blood in many cases, although in the acute insane the tendency to clot early is quite pronounced in some cases. We have noticed this tendency where there is increase of specific gravity of the blood as a whole, where this is concentration of the blood from liquid abstinence. The specific gravity of the blood as a whole is commensurate with its physical condition. In exaltation when the number of cellular elements is above normal exceptionally the specific gravity is likewise above normal. By means of the hemoglobinometer, hemocytometer, hematokrit, we learn very important symptoms, which the customary means at the hands of the physician do not reveal to us. We thus learn by more scientific means the physical state of the individual. And so we have come to take blood data of each individual on his entering the hospital and in special cases at certain intervals. We are thus guided in our dietary and medical and hygienic treatment of the insane.

The blood of the insane is impaired or in a morbid state. In mania the rule is that the red cells are diminished in number, the diminution corresponding to the deterioration of physical health generally. But in many maniacs near the inception of the exaltation, especially when the period of depression has been

<sup>2</sup>William H. Harrison, A.M., M.D., Ph.D., Pathologist, State Lunatic Hospital, Harrisburg. Read before the annual meeting of the Pennsylvania State Medical Society

short and the disease has not had time to cause palpable physical deterioration, such exaltation is sometimes accompanied by an increase of the red cells above the normal.

The secretions and the emunctories act powerfully and rapidly, so that there is rapid drain of water from the system, which loss of fluid is seen in the blood in a very short time, and consequently there is increase of hemoglobin and of red and white cells and plaques in proportion. We exceptionally meet with cases where this proportion is distinctly modified, the white cells and plaques, more rarely either alone, being in greater or less proportion to the red cells than normal. At the same time the body weight declines. Thence the propriety of supplying the maniac with abundant food and drink at frequent intervals with tonic remedies.

In an exhausted maniac who came within our notice a few months ago the number of red cells per cu.mm. was about 8,000,000. After a liberal supply of food and fluid at the end of ten hours there was a reduction to 4,000,000. As to the hemoglobin we have only very rarely found it increased above normal in mania. Although diminished below normal in mania as a rule it is at greater degree in exaltation than in depression. As a rule the ratio of white cells and plaques bears the same relation to the red cells as in health. However, there are many variations as to these bodies with physical deterioration in different forms of depression.

In melancholia there is notably a diminution in red cells, with exceptional cases. The profounder the depression the more pronounced such diminution. And yet at Kirkbride's Hospital we examined the blood of patients who were regularly fed by the tube for long periods and in whom the reduction of red cells was only slight. As in exaltation so in mania, there is often considerable variation as to the ration of white cells and the plaques to the red. In dementia the diminution of red cells and white cells and plaques in proportion is commonly quite marked. In the case of a dement at Kirkbride's the number of red cells was as low as 918,000. In some cases of dementia, however, at the State Hospital, we have found that the dimi-

nution was only slight. Cases of men and women who, after the storm of mania and melancholia had passed and the body took on flesh, increased in weight and became well nourished, and the white cells and plaques were in normal proportion, and the hemoglobin, though below normal, was of a pretty fair figure.

In dementia we frequently find a disproportion of red to white cells and the plaques more commonly than in acute insanity. In epileptics we sometimes find excess of the cellular elements beyond the normal line during and immediately following convulsions, at all events in many cases a decided increase, and the hemoglobin increased, with many corresponding physical symptoms, as the appearance of albumin in the urine, all due to great functional disturbance, and after some hours a corresponding diminution in these elements, notably below the normal line, a true reaction after the violence of the convulsions, and later on the more equable deterioration of many physical symptoms, including those of the blood, as in dementia.

In paretics, likewise, during and immediately following the convulsions, there is commonly an increase in the cell elements, sometimes beyond the normal line, to be followed after some hours by the reactionary diminution of the cells and hemoglobin, and then later on the steady decline in cells as to number, and in the hemoglobin in which decline is very rapid, keeping pace with the general physical deterioration in many other respects.

#### **Cholera Infantum<sup>3</sup>**

Cholera infantum is a disease of the hot summer months, only affecting children fed artificially upon milk or milk preparations. It is a rare disease compared with the fermental or other summer diarrheas. It is not known to affect infants wholly fed from the breasts of healthy mothers. It is caused by tyrotoxin or by poisonous proteids evolved by the growth of toxicogenic bacteria in milk or milk foods.

These poisonous products, which may be in the milk or milk foods, already

<sup>3</sup>Marshall L. Brown, M.D., Allston, Mass., in the *Boston Medical and Surgical Journal*.



preformed when ingested, produce in the alimentary canal intense irritation, hyperemia, vomiting, diarrhea, cramps and vaso-motor paralysis, resulting in very great transudation of serum from the blood.

Every case of cholera infantum is one of poisoning from the elaboration of chemical products by the growth of bacteria in milk.

From being perfectly well, or having suffered from a dyspeptic diarrhea the child begins to vomit and purge. These may persist incessantly. The color fades from the cheeks; a deadly pallor spreads over the face; the fontanelles become much depressed, the eyes are sunken; anxiety is in every feature. The food and everything taken is quickly rejected; then bile-colored mucus is thrown off. The frequency of the vomiting increases. The stools first contain fetid and undigested foods, are acid; then watery and copious; and finally become almost wholly of serum, are colorless, alkaline, possessing an odor peculiar and characteristic. The flesh melts away from the little patient as in cases of Asiatic cholera. The skin is cold and clammy, pulse weak, thready and rapid; respiration irregular and hurried. Exhaustion quickly comes. The temperature is usually from  $102^{\circ}$  to  $104^{\circ}$ , and in fatal cases rises to  $107^{\circ}$  to  $108^{\circ}$ . The child moans, falls into a comatose state, preceded sometimes by great restlessness, delirium and convulsions. Thirst is excessive, abdomen sunken. The temperature may become sub-normal. The child, in an algid state, lies in a stupor, eyes half-open, apparently covered with a film. Urine in severe cases suppressed. Death may result in forty-eight to seventy-two hours. The termination of most cases, unless the remedial measures taken are successful, is death.

When the above symptoms have ensued, the poisons have accomplished their characteristic and pathologic action. Nature has by the vomiting and diarrhea done her best to eliminate and throw off the poisons. It is the continued action of these poisons upon the nervous system and, through that, upon the stomach and bowels that should be counteracted and inhibited.

The condition then existing is one of

extreme hyperemia of the whole alimentary tract, a paralysis of the vaso-motor system of nerves presiding over this tract, resulting in a continued transudation of serum from the blood, vomiting, diarrhea and shock.

The remedy which will lessen and obviate the effects of the shock, and by its action upon the vaso-motor nerves stop the transudation of serum, and thereby check the diarrhea and vomiting, will meet, completely, the most pressing and important indication in such cases.

Potassium bromid is absorbed by the mucous membrane of the entire alimentary canal when it is placed in contact with that membrane in proper solution. When so taken into the blood, it remains unchanged, and passes out of the system without decomposition, eliminated by the skin and kidneys. Its remedial effect is due to its action upon the vaso-motor system which controls the contraction of the arterial vessels. The larger the dosage the more intense and longer its action upon the vaso-motor system. Its action is primarily exerted upon that part of the vaso-motor system which causes the contraction of the arterial vessels, thus reducing the supply of blood to all the tissues, but acting more especially upon those which are superabundantly supplied with blood. It increases and exaggerates the arterial tonicity, tetonizes the arterioles, slackens or arrests the circulation, and produces an oligemia of all the tissues, and consequently of the alimentary canal. Hence the action of potassium bromid completely antagonizes the action of the poisonous proteids which cause cholera infantum, and is therefore a specific remedy when administered in season and in that dosage which will produce its physiologic action.

The proper nourishing and sustaining of the patient and supplying the necessary fluids to take the place of the great quantity lost is an essential after-part of successful treatment.

An experience of twenty-five years' practice in the use of potassium bromid has given to me satisfactory results and proved conclusively that it is a remedy of great value in these diseases, and renders more effective service than any and all other remedies combined.

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## EDITORIAL.

### HOW DOCTORS DIFFER.

When the Sage of Concord told us to "hitch your wagon to a star," he might have saved the medical profession much worry had he also given them some specific advice as to the point to which to hitch the uterus should it wander from its normal position, particularly if it retrograded.

Has not much professional contention, discordant opinions, and various

methods of practice followed this failure of wise counsel? Many centuries have passed since Horace wrote:

Fuit ante Helenam cunus teterrima belli  
Causa.

And will not the same be said of the uterus? Van Swieten declared, *Propter uterum mulier est quod est*. But now, according to some, if the uterus tries to

escape externally from the pelvic cavity, and refuses the skill and power of the suspenders, the proper proceeding is to let it be completely cast out, denied domicile in the woman, notwithstanding the axiom of the good teacher.

But again: Where shall the errant womb be hitched? Some answer, to the inguinal canal, shortening the round ligaments. No, say others, "hitch it to the abdominal wall." Still others declare this wrong, and want it to be hitched to the vagina; and, again, there are advocates of vesico-fixation. Others again shorten the utero-sacral ligaments, along with similar abbreviation of the round ligaments. But very serious disturbances, in some instances resulting in death, more especially in cases of labor following the hitching, have occurred. The answer made by enthusiastic operators to such objections is that the operation was not done in their way; the technic was wrong.

Quite recently one of the highest French authorities, Pozzi, has said that these various fixations only give a temporary success, and his treatment of movable retro-displacements of the uterus is to cure the metritis,—use curettement, amputation of the cervix, etc., restore the perineum, often ruptured or relaxed, and apply a pessary. So, too, that veteran, Bantock, a better operator than almost any one of the suspenders, or fixationists, states that these operations rest upon a wrong theory, and upholds the use of a pessary as part of the necessary treatment. Elder, of Nottingham, maintains similar views, and regards fixation of the uterus to the abdominal wall, as one of the fads of the hour that will soon pass away. Fränkel, while occasionally using ventro-fixation, is astonished by the large number of cases reported by some operators. He asserts that many retroflexions need no treatment, and that the persistent

use of pessaries cures in most cases if the retro-deviation is movable.

Notwithstanding the testimony of these recognized authorities, there are not wanting less able and eminent men, endeavoring to carve their way through blood to fortune and to fame, who declare pessaries obsolete and useless.

Emmet, prince of gynecologists, opposes both the Alexander and fixation operations, stating that he has yet to see a case which he cannot relieve without them.

Again, another mooted point is, who was the first abdominal suspender? Some attribute this doubtful honor to an American doctor, and the date given is 1885. But it should be remembered that Koeberlé did the operation of ventro-fixation in 1877, then Müller in 1878, Lawson Tait 1880, and Hennig 1881. There should be no doubt of the American's having followed, not preceded others on this point, no matter what opinions may be held in regard to other controversies.

Freeland Barbour, in his valedictory address before the Edinburg Obstetric Society, November, 1895, has said: "So much literature is now pouring in on all sides in connection with suspension and fixation of the uterus that a new department of work has arisen in connection with it. The literature heap grows so rapidly, and contains so much rubbish concealing the gems, that original research is becoming a necessity." Yes, just such work is needed, and it ought to include not merely collecting the few gems from the much dirt, the separating of scanty wheat from abounding straw and chaff, but it ought to condemn men who wear borrowed clothes, quote without credit, claim without right, and build, without just acknowledgment, upon the foundation laid by others. The exile of oblivion should be the final fate of all Tichborn claimants.

## ABSTRACTS.

## RECORDS OF WORK IN THE WOMAN'S HOSPITAL OF PHILADELPHIA.\*

A concise summary of the gynecological work done in the Woman's Hospital of Philadelphia during the ten years (1886-1896), during which Dr. Fullerton was associated with the institution as its physician-in-charge, was given.

Comparative lists prepared from the records kept during this period showed that, among nearly 40,000 cases treated in the wards and dispensary, 41 plus per cent. were inflammatory disorders of the pelvic organ; 27 plus per cent. were displacements; 14 plus per cent. were functional disturbances, mainly due to constitutional causes, lack of development, etc.; 7 plus per cent. were new neoplasms; 10 plus per cent. were lacerations, resulting from childbirths.

Inflammatory diseases were found to be mainly septic in origin, puerperal or gonorrheal; displacements were often the result of faulty hygiene. For both these conditions palliative measures, although often temporarily beneficial, had been found to be unsatisfactory so far as permanent results were concerned.

Dr. Fullerton, therefore, drew from her own experience the conclusion that medical gynecology was limited in its beneficent uses to prevention rather than to cure. Its results were particularly unsatisfactory with the class of women who were obliged to be wage-earners, and who could not keep themselves comparatively comfortable by rest and the constant application of palliative remedies.

The tendency of gynecology to become so largely a branch of surgery rather than that of general medicine, is believed by Dr. Fullerton to be due to the fact that conditions of diseases, as affecting the pelvic viscera, so frequently result in producing organic lesions, which induce chronic invalidism and render the functional activity of the generative organs a menace to the health and even the life of the patient. The following

case from the hospital records was reported as illustrating the value of radical over palliative measures in organic pelvic diseases:

The patient, M. T., aged thirty-seven years, American, married,--nulliparous--came to the Woman's Hospital on February 24, 1890, having a large indurated uterus, imbedded in a recent pelvic enudate. Her personal history was as follows: Never strong, menstruation established at eleven years of age, painful and irregular, accompanied by nausea and vomiting, flow profuse. Was married at sixteen years of age. Had never been pregnant. Entered hospital for treatment for severe headache and backache; constant pelvic pain and metrorrhagia.

A diagnosis was made of the fibroid degeneration of the uterus with perimetritis. Upon the advice of the physicians who saw her in consultation, she was placed upon treatment by electricity, and from February 24, 1890, until April 26th, of the same year, was treated by the application of galvanism *per vaginam*. April 26th the intra-uterine electrode was substituted for the vaginal, and treatment continued until May 12, 1890, when the patient left the hospital symptomatically relieved.

Three months after her discharge she returned with exaggerated pelvic tenderness and the recurrence of hemorrhages. A pelvic examination showed the presence of a large fluctuating mass to the left of the uterus and one of less size on the right. Dr. Fullerton advised and performed an operation for removal of the appendages, both of which were markedly diseased,—a condition of double hydrosalpinx, with occlusion of the tubes, and entire destruction of the ovarian stroma existing. Adhesions were universal and dense. The uterus was decidedly indurated, but contained no nodular outgrowths. It was hoped by this operation of castration to prevent its further development. The patient

\*Dr. Anna M. Fullerton, of Philadelphia, before the State Medical Society.



returned to her home on September 24th entirely relieved.

Three and a half years later, February 1, 1894, she returned to the hospital with the statement that she had continued in good health for about six months after the operation upon the appendages. Hemorrhage and pain then again recurred, and continued at irregular and decreasing intervals. Examination showed the uterus to be considerably larger than when first observed and again bound down by adhesions. The patient desired to have a complete hysterectomy done. The operation was undertaken, but the patient, a large plethoric woman with chronic nasal catarrh, took ether badly—so, that after freeing the uterus from its adhesions, it was thought best to terminate the operation by simply doing a hysterorrhaphy in the hope that pressure symptoms might thus be relieved. The patient returned to her home in good condition a few weeks later.

One year after her last discharge, April, 1895, she returned to the hospital for the fourth time. She stated that for six months following the hysterorrhaphy she did well and experienced much relief from her former symptoms. Hemorrhage and pain again recurred at the end of this time, and she now desired another attempt to be made for the removal of the uterus.

After a little preparatory treatment, to avoid the difficulties formerly experienced by etherization, the operation of hysterectomy was done and the uterus was amputated at its vaginal junction. The organ was found to be three times its original size and now, unmistakably, a fibroid uterus. The patient made a good recovery, and has since then been fully restored in health and activity.

Such experiences would certainly seem to prove that the early performance of a radical operation in cases of organic disease is the surest passport to immunity from further suffering.

#### ANNUS MEDICUS MDCCCXCVI.\*

The year 1896 will be remembered as the anniversary year of the end of the century. May 14th was the centennial of Jenner's first successful arm-to-arm vaccination, and October 16th, the semi-centennial of the beginning of the greatest epoch in surgical practice, the epoch of anesthesia. Had these two discoveries alone marked the century of medicine, the benefits conferred upon mankind would have been incalculably great; but we have to add to these two—in surgery, the antiseptic treatment of wounds, and in medicine the use of antitoxin-serum, especially in diphtheria—which are hardly second (in importance and value) even to these greatest discoveries.

The application of the Röntgen rays to medicine and surgery has resulted in substantial progress.

The year will be memorable for the Armenian massacres in Turkey, and the prolongation of the bloody conflict between Spain and Cuba.

**CHOLERA.**—The principal outbreak of

cholera, by which invasion of Europe was threatened, was the wide-spread and long-continued epidemic which has prevailed through almost the entire year in Egypt. It is an interesting fact that this epidemic did not arise by extension along the regular routes of travel from India, by way of the Meccan pilgrimage, for there was this year no outbreak of the disease in its usual hotbed and distributing station, the Hedjaz.

The outbreak, which began at Salhieh, a village north of the delta of the Nile, is believed to have been communicated to this village by pilgrims returning from Mecca, where cholera was then epidemic. In spite of vigorous sanitary measures, the disease spread up the valley of the Nile; and in January, 1896, the first case appeared in Alexandria. Late in May cases of cholera were found in Cairo, and its spread was rapid. The efforts of the sanitary authorities reduced the mortality to but two or three cases a day, in a city of over half a million people. The British army operating against the dervishes of Upper

\* Editorial—*Boston Medical and Surgical Journal*.

Egypt was not exempt. The sanitary service, following and checking the disease wherever it appeared, noted that the epidemic was less virulent than those of 1865 and 1883, and that it expended its power chiefly upon the poorer classes, as is shown by the fact that among 6,860 tourists in Egypt during the last season, there was not a single case of cholera. A sanitary cordon was established upon the Peninsula of Sinai, where the baggage of returning pilgrims was disinfected; ten days' quarantine was enforced there and at El Tor.

The extent of the ravages of this epidemic may be judged by the fact that up to October 10, 1896, the mortality was 18,110. With the arrival of colder weather, the disease gradually died out, until in December, it had almost entirely disappeared. The Turkish quarantine against Egypt was abolished in October.

The efficiency of the quarantine Egypt, in Turkey and the other Mediterranean countries, is shown by the fact that cholera was not communicated from Egypt to a single Mediterranean port during the year. Neither in Constantinople nor in the Turkish provinces did cholera appear, except for a few sporadic cases during the early months of the year—the last dying sparks of the epidemic which raged so fiercely in 1895.

In Bombay and Calcutta cholera has been constantly reported throughout the year, reaching its height during the spring months, and gradually decreasing during the summer. Between March 1st and April 25th there was 1,809 deaths from cholera registered in Calcutta.

In Japan, which was devastated in the year 1895 by a severe epidemic of cholera brought from China by the returning army, and in which there was good reason to expect a recurrence of the epidemic this year only a few isolated cases were reported, and of these the mortality was so low that many were considered of doubtful genuineness. The vigilance and skill of the Japanese sanitary authorities received its merited reward.

The Western Continent was at no time during the year in danger of invasion, and the Continent of Europe was not

reached by cholera, even across the narrow Mediterranean. The fact that the epidemic in Egypt was confined to the lower classes, who constantly resisted the efforts of the sanitary authorities to stamp out the disease, and for the most part refused to take the simple precaution of boiling their drinking water, was significant of the ease with which cholera can be controlled if it should gain a foothold in a civilized and intelligent community. As stated above, not a case occurred this year among the large number of tourists who visited Egypt.

Late advices (December 28) state that cholera has broken out in Hong Kong, and quarantine regulations will be enforced in Japan against certain Chinese ports.

**SMALL-POX.**—During 1896, small-pox has not prevailed over any wide extent of territory in the United States, and has been well controlled by the sanitary authorities in the few instances in which it has gained any foothold whatever. The Mississippi and Ohio Valleys, where it was carried chiefly by the negro deckhands of the river steamers, have at no time during the year been free from the disease. At the close of 1895, there were a moderate number of small-pox cases in New Orleans and Memphis, and a diffusion of the disease along the river ports of Arkansas. A sharp epidemic occurred near Wheeling, W. Va.; and at Martin's Ferry there were 140 cases and three deaths during December 1895.

During January and February 1896, the disease continued to increase in New Orleans, and in March began to spread rapidly. The levee and cross-tie camps near steamboat landings on the Mississippi and its tributaries became infected, making it practicable to convey the disease from one port to another by river steamers, as cases occasionally were found among the deck passengers, some alarm was felt among health officials. Those at Shreveport refused to allow boats from New Orleans to land at that port until satisfied that all on board had been vaccinated. On the recommendation of the Marine Hospital Service, the Steamboat Captains and Owners Exchange prohibited the employment of roustabouts unless they furnished certificates of successful vaccination. During April, extensive vaccination was carried

out among the steamer crews by special sanitary inspectors. The necessity for this action is shown by the fact that between February 29 and April 25 there were 589 cases of small-pox in New Orleans, with 175 deaths. During the winter and early spring there were continual reports of small-pox in the country districts of Arkansas; there were also a large number of cases at Memphis, Tenn., and the adjacent country, and a considerable epidemic in Missouri along the Mississippi River.

During May a marked decline of the disease took place at New Orleans, and it was no longer found necessary to enforce vaccination among the crews of the river steamers. During the spring months also the disease declined in a marked degree all along the Mississippi Valley.

Through the winter, a few cases were reported in Arizona, Texas, Cairo, Ill. and in Kentucky; and a number of scattered cases occurred throughout a widespread territory in Michigan. A few cases occurring in Ohio and Western Pennsylvania were traced to the arrival of persons bringing the infection from the epidemic at Martin's Ferry, O.

One of the severest outbreaks occurred among the densely packed negro population of the city of Key West during June and July. From the proximity and commercial relations of this city with Cuba, one would suspect transmission from that country, where the conditions due to the war have led to extensive prevalence of both small-pox and yellow fever. A careful investigation, however, failed to reveal the source of the epidemic, which was for a time difficult to control, owing to the resistance of the ignorant population to isolation and vaccination. A camp hospital was established by the Marine-Hospital Service, but attempts on the part of the mayor and the sheriff to enforce their authority and compel the patients to be taken to the hospital almost resulted in a riot, and were temporarily abandoned by these officials; whereupon the State Commissioners of Health enforced a strict quarantine until the city authorities saw fit to avail themselves of the facilities for control of the disease provided by the State and Marine-Hospital Service. In time, the people submitted

to vaccination from house to house, by the State officials, with the result that by the middle of August the disease was under control. By the end of the month the epidemic had been stamped out and the hospital camp broken up. The epidemic had been so restricted by the authorities that in spite of the unfavorable conditions, and the resistance of the ignorant population, there had been only forty-two cases and eight deaths.

In Cuba, conditions have contributed to the continuance and spread of small-pox. The constant arrival of large numbers of unacclimated troops crowding together in barracks, the massing of the country population in the large towns under the edicts of the captain-general, the destitution caused by the war, have all united as causes of the constant prevalence both of small-pox and yellow fever. It is impossible to form any estimate of the total mortality from those diseases in the smaller cities throughout the island. In the Spanish military hospitals it has been very high. During July and August in the city of Santiago alone there were thirty to forty deaths per week from small-pox, and an average of 900 to 1,000 cases. In the autumn the disease declined coincidentally with an increase of yellow fever. During the autumn small-pox increased in Havana to such an extent that in one week there were sixty-seven deaths.

In Rio de Janeiro small-pox has, as usual, continued throughout the year, and there have been slight epidemics in Peru at Lima and Callao.

In Constantinople and the Turkish Provinces small-pox has been continually present; during the summer there was a severe epidemic at Diarbekir.

In England, London and the large cities of the provinces were unusually free throughout the year. There are, of course, always a few cases under treatment in the metropolitan hospitals in London, but at no time was there an approach to an epidemic.

In Gloucester, and the surrounding country in the west of England, there was a severe epidemic during the winter and spring, which costing a large number of lives, certainly taught, in quarters where this was much needed, a salutary lesson on the value of vaccination. Gloucester had been a centre of the

anti-vaccination movement, and vaccination had been neglected for ten years. The mortality among the unvaccinated, especially the high infant mortality, aroused the authorities at last, but too late, to an appreciation of their folly and to a zealous enforcement of the vaccination laws. By April 25, there had been upwards of 1,300 cases in Gloucester alone; by which it will be seen that the epidemic was much severer than any which has occurred in our own country during the year. The mortality among the unvaccinated in this epidemic contrasted so badly with that of the vaccinated, as to convince the most sceptical of the value of Jenner's priceless discovery.

YELLOW FEVER is endemic in Rio de Janeiro, is continually present among the seaports of the West Indies, and frequently gains a foothold in Mexican ports. The efficiency of our quarantine service has prevented it in our southern seaports, though the danger was increased by the extent of its spread in Cuba, owing to the extremely bad sanitary conditions of the island engendered by the war. These conditions have been this year worse than last. A continual stream of the unacclimated troops has been added to the large force already present on the island, and owing both to the edicts of the captain-general and the danger of pillage and murder by the troops, the country population has flocked into the cities, where disease, filth and destitution have done their deadly work. It is notable that yellow fever has not molested the native population to any extent, while its ravages among the Spanish soldiers have been fearful. Small-pox, on the other hand, has been much more fatal among the native population than among the troops.

During the hot summer months, while small-pox was declining, yellow fever increased in extent and severity. In the autumn the small-pox again increased, until in October both diseases were at their height. In a single week in October there were seventy deaths from yellow fever in Havana, sixty-three of them being among the soldiers in the military hospitals.

In Rio de Janeiro, the height of the epidemic of yellow fever was reached in February and March, the summer

months of that latitude. From February 8 to 29 there were 594 deaths, and from March 14 to 29, 459 cases.

During the spring there was an epidemic at Puerto Rico, and in April a few cases occurred at Callao, Peru.

In October the disease gained a foothold at San Salvador.

At the Southern quarantine stations of this country the usual vigilance was maintained against the entrance of yellow fever or small-pox in vessels from Rio and Cuba, and a very large number of vessels were inspected and disinfected. So far as can be learned, only one case of yellow fever has landed on our shores this year, a second-cabin passenger on the steamship *Yucatan*, which arrived at New York, October 19, from Havana. The patient was not ill on arrival, but was detained at Hoffman Island because he had no acclimatization certificate from the United States sanitary inspector at Havana. At Hoffman Island he developed yellow fever, and died in three days. A more striking example of the practical value of quarantine system could hardly be cited.

Several vessels which had had yellow fever on board, either in Rio harbor or on the voyage north, arrived at our quarantine stations, but the case reported was the only one which actually reached our shores.

In November yellow fever continued steadily to increase in Havana, and a severe epidemic broke out at Port au Prince, Hayti, where the mortality was very severe among the natives, and several officers of the American vessels lying at that port lost their lives.

PLAGUE.—In January, 1896, the U. S. Consul at Canton, China, reported a few cases of bubonic plague in that city, also that the disease had been reported at Hong Kong. In February it had spread to such an extent that an epidemic similar to that of 1894 was feared, and the U. S. Consul at Hong Kong refused clean bills of health to steamers leaving that port for the United States *via* Yokohama. In March a Chinese passenger from Hong Kong for the United States on the steamer *Gaelic* went ashore at Yokohama and died. He was buried by the Chinese, but the Japanese authorities, suspecting trouble, exhumed the body, and found the bacillus of plague. No



other passengers coming down with the disease after a detention for a suitable time at Yokohama, the *Gaelic* was given a clean bill of health and allowed to proceed, the U. S. Marine-Hospital Service, of course, being informed of the circumstances.

In April the plague was scattered throughout Hong Kong and the adjoining districts; Europeans, as well as Chinese, were numbered among its victims. About sixty cases a week came under the cognizance of the authorities, but no reliable account could be obtained of the number of cases that actually occurred. In Canton a similar state obtained. In April the Island of Hainan in the Straits Settlements was declared infected. In May the plague broke out in Foo Chow, and extended rapidly through the poorer quarters of the city. It continued during June, and the mortality was much greater than in 1895, it being estimated that in Hong Kong ninety-five per cent. of the cases were fatal. In Canton in June there were about 280 deaths a day. Through the hot weather the plague at Hong Kong and Canton gradually declined, though the disease still lingered late into the autumn. All through the season all vessels leaving Hong Kong for the United States via Yokohama have been carefully inspected at both these ports, and, when suspicion of disease existed, have been held for disinfection. Quarantine and disinfection of luggage of Chinese passengers have been frequently practised at our Pacific quarantine station. No case of plague or small-pox has reached our shores from China or Japan.

The only portion of the Japanese Empire where plague gained a foothold was the island of Formosa; here there was a severe outbreak in the summer.

In September bubonic plague was reported in Bombay, and had already a firm foothold, as several hundred persons had died of the disease. The question of its origin was interesting. Since no probable source of infection by overland travel could be traced, it was thought that the disease must have been brought by sea, probably from Hong Kong, from which port ships are constantly arriving in Bombay. The fact that plague is epidemic coincidentally among human beings and rats, which

always die of it in large numbers, showed at least a possibility that the rats which infest the holds of the ships might have brought it with them to Bombay. In October, Haffkine established the identity of the disease beyond doubt by finding the bacillus. Early in October plague appeared in Calcutta.

The question of the mode of origin of this epidemic is of interest from the fact that in previous epidemics the plague has spread slowly from its starting-point, working its way outward very gradually. The fact that before the disease appeared in Bombay, the rats were noticed to be dying in large numbers, so that the children used to amuse themselves playing with the carcasses in the streets and throwing them at each other, suggests the possibility of transmission by sea.

The epidemic, both at Bombay and Calcutta, was mild compared with the ninety-five per cent. mortality of Hong Kong and Canton, but the degree of mildness must have been relative, when we consider that up to October 31, out of 504 cases of plague reported at Bombay, there had been 396 deaths. Efforts at restriction of the disease by sanitary measures were of little avail, owing to the ignorance and filth of the infected population.

In November the British Government appointed a commission, of which Prof. Haffkine is a member, to investigate the disease, as to its nature, mode of origin, communicability, etc. It is to be hoped that the report will throw some light on the mode of origin of this and other epidemics.

During the autumn there has been a not inconsiderable epidemic in the Yensen in Southern Arabia.

Late advices from Bombay (December 28) state that plague is increasing, and that there have been 2,094 cases and 1,494 deaths. Martial law is threatened unless the natives obey sanitary regulations.

TYPHUS FEVER has been reported throughout the year in Moscow and Warsaw in Russia, has been almost constantly present in Madrid, and has occurred in various sea-ports widely scattered over the globe. No cases have reached the United States.

During January and February there

were many scattered cases at Liverpool, London and other English sea-ports, and a small epidemic occurred in Glasgow, Scotland. All the cases occurred in an overcrowded district, along the river and near the docks, a district which had a reputation for the association of overcrowding with typhus fever. The health authorities combated the disease by removing the sick to the hospital, declaring the worst of the houses untenable, and reducing the number of inmates in others. About the middle of April it was brought under control.

The worst epidemic of the year has recently occurred at the Austrian naval station of Pola. On December 17, 700 cases were reported in the Naval Hospital alone. The town was deserted by all who could leave it, and the death-rate was very high.

Throughout the year *BERI-BERI* has been endemic at Rio de Janeiro, an average of five to twelve deaths per week being reported.

An isolated epidemic occurred during October and November at the Richmond Insane Asylum, Dublin, Ireland. Over 100 cases occurred, several being members of the nursing staff. The disease was of a mild form, though heart symptoms were prominent, as in the epidemic of 1894.

No pandemic of *INFLUENZA* has been reported this year. From Constantinople during the spring months constant reports were made of the prevalence of influenza, and other respiratory diseases. The long duration of time over which the cases occurred, and the absence of any period of especial severity, however, point against these cases belonging to the type of epidemic influenza.

The sanitary reports from Constantinople and the provinces during the spring months were unvaryingly bad. Following the massacres in Marash and Zeitoun came influenza, small-pox, typhus and typhoid fevers, and dysentery. Epidemics and famine following massacre reduced the unfortunate population to a state of wretchedness beyond all description. In Constantinople through the year almost all the infectious diseases except cholera, have claimed many victims, and the misery resulting from the massacres, has reduced that city to

a sanity condition, if possible worse than the ordinary.

The experience of the past year in regard to the *ANTITOXIN OF DIPHTHERIA* has justified the hopes to which early experience gave rise.

The most important contribution to the statistics of the subject was the exhaustive report of the American Pediatric Society's collective investigation on the use of antitoxin in private practice. Six hundred and fifteen physicians recorded their experience in 3,384 cases—and to those were added 942 and 1,468 cases treated at their homes by the New York and Chicago Boards of Health respectively, up to May 2d of this year, and the mortality of the whole was only 713, or 12.3 per cent. Brought out in the most striking manner by the report was the low mortality when the remedy was given early in that disease.

Taking only the cases injected within the first three days, the mortality is 7.3 per cent. of all cases. Omitting from these those dying within twenty-four hours of injection, the ratio is further reduced to 4.8 per cent., which more than substantiates Behring's claim of a reduction of diphtheria mortality to five per cent., if treated on the first or second day. The mortality of the 1,448 cases injected after the fourth day was only 27 per cent.

The result in the laryngeal cases was even more convincing of the value of antitoxin. In one-half of the cases no intubation was required, and of the 537 cases coming to operation only 25.9 per cent. died, a mortality less than half as great as ever reported by any other method of treatment.

The mortality in 4,837 cases confirmed by bacteriologic examination was 11.4 per cent. and in 957 cases in which the clinical diagnosis only was made, 16.3 per cent.

The fact that these statistics were drawn from different and widely separated localities, and therefore under every possible variation as to local conditions, severity of the epidemic, etc., gives them a value much greater than that of statistics shown from single institutions, and effectually answers the argument that the favorable results of the use of antitoxin are due to especial mildness of the epidemic, inclusive of a

large number of mild cases owing to report of Klebs-Loeffler bacillus, special facilities for antiseptic treatment, etc.

From all quarters and under all conditions where the antitoxin treatment has been carried out, the reports issued during the year 1896 have fully sustained the claims made for it. There can be no doubt that thousands of lives have already been saved by this remedy, which may be justly termed the greatest contribution to the healing art made by modern scientific medicine.

The fact that antitoxin has begun to exert a marked influence upon the municipal death-rate from diphtheria in some of our large cities can hardly be gainsaid.

Owing to the fact that the number of antitoxic units required to successfully combat the action of the tetanus toxin, increases so rapidly with the lapse of time after inoculation, and with the severity of the initial infection, it is hardly to be expected that the curative effects of antitoxin in tetanus will bear comparison with that in diphtheria. The mortality in forty-four cases of tetanus treated by antitoxin has been 16 per cent. The mortality in acute tetanus, not so treated, has been estimated at 80 to 90 per cent., and in chronic tetanus, 50 per cent. Even in cases where the treatment has begun late, and only after the disease has made extensive inroads, success has been attained.

The evidence which has accumulated during 1896 cannot be said to be strongly in favor of the value of SERO-THERAPY in streptococcus infection. The discussion as to its value by the Obstetrical Society of France last April resulted in the main against serum. Marmorek had 413 cases of erysipelas in which he found improvement in general and local condition, and fall of temperature to result from the treatment.

**THE RÖNTGEN RAYS IN MEDICINE—**Toward the close of 1895 Prof. Röntgen of Würzburg discovered rays which would pass through the soft tissues of the body, but not through the bones, and would affect a photographic plate, so that a photograph of the bones, showing their exact outline, could be taken through the tissues of the living body. Physicists and medical men entered into the study of the new kind of radiation, the former seeking to find out the nature

of the rays from a scientific standpoint, and the latter to perfect the methods of application to medicine and surgery, and ascertain their possible value in the study of medical and surgical disease. Much has been accomplished in the modification of the Crookes tubes, in order to increase the intensity of the radiation, so as to shorten the time necessary for exposure of the object to the rays, and to increase the definition of the resulting skiographs. In fluoroscopy also, marked progress has been made in perfecting the detail of the instruments and their application. It has now become possible for the surgeon in his office or the hospital to examine fractures with the fluoroscope, to correct deformity, and to check his results.

The most easy and obvious application of the rays, and therefore the first, was the detection of foreign bodies in the tissues. In the early days, hundreds of foreign bodies were removed from the extremities. As the process increased in definition and penetrating power, so that the deeper regions of the body could be explored, foreign bodies were located in the alimentary canal, and jackstones, coins, etc., impacted in the esophagus were successfully located and removed. It was found that uric-acid calculi obstructed the rays, but that gall-stones were so transparent to them that they could not be differentiated from the ordinary tissues of the body. It was found that buttons on the clothing obstructed the rays, and that care must be taken not to confuse such extraneous objects with calculi.

It is in the diagnosis and treatment of fractures, however, that the rays seem likely to find their 'most important application. It has been found by numerous observers that fractures which to ordinary methods of investigation are apparently perfectly reduced, show considerable deformity under the rays, and it may perhaps be possible in certain cases to secure by the use of the fluoroscope more perfect apposition of fragments than by ordinary methods. The prognosis of fractures as to rapidity of union and resulting deformity will probably be helped by the rays. In obscure dislocations, also, the rays have undoubtedly aided accurate diagnosis and treatment.

The diagnosis of tumors of the bones

and joints, and therefore the prognosis and treatment have been facilitated by the rays in numerous reported cases.

With regard to the admission of skiagraphs as evidence in court, although they have so far been excluded from trials in this part of the country, the opinion was expressed by the judge in a recent case tried before the Suffolk Superior Court that the information gained by the physician by means of the rays was of analogous character to that gained by the examination of internal

organs by other instruments employed in diagnosis, and that he was disposed to admit such evidence in medical testimony.

In medicine the fluoroscope has been proved to be of value in regard to the diagnosis of the chest, tuberculosis of the lungs, pleurisy with effusion, aneurysms of the aorta, etc., and in the hands of Dr. Francis H. Williams of Boston has been shown to be of distinct value in accurate determination of the heart's area.

## LIBRARY TABLE.

**INTERNATIONAL CLINICS.** Vol. II., Sixth Series, July, 1896, and Vol. III., Sixth Series, October, 1896. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, with specially prepared articles on treatment. Edited by Judson Daland, M.D., Philadelphia, Instructor in Clinical Medicine and Lecturer in Diagnosis in the University of Pennsylvania; Professor of Diseases of the Chest in the Philadelphia Polyclinic; etc.; by J. Mitchell Bruce, M.D., F.R.C.P., London, England, Physician to and Lecturer on the Principles and Practice of Medicine in the Charing Cross Hospital, and by David W. Findlay, M.D., F.R.C.P., Aberdeen, Scotland, Professor of the Practice of Medicine in the University of Aberdeen; etc. Philadelphia: J. B. Lippincott Company. Cloth. Price, \$3.00.

Since its establishment in 1891 the system of "International Clinics" has steadily increased in popularity, and to-day is one of the medical publications that has assured support, no doubt because each successive volume marks a distinct advance over its predecessor. The two volumes last issued are of more than usual excellence. The choice of papers and the general editing shows great care, and the wide range of subjects under consideration make the work of great value to the general practitioner. Among the contributors appear the names of such eminent professional men as Beverly Robinson, Professor Chauffard, Sir Dyce Duckworth, Arthur Van Harlingen, Paul F. Munde, Roswell Park, Charles B. Penrose, Burney I. Yeo, Henry W. Stelwagon, E. E. Montgomery and others. The names of the editors and publishers are sufficient

warrant that the standard will be maintained in the coming series.

**OVER THE HOOKAH.** The Tales of a Talkative Doctor, by G. Frank Lydston, M.D., Fellow of the Chicago Academy of Medicine, the Southern Surgical and Gynecological Association, and the American Academy of Social and Political Science; Professor of Criminal Anthropology in the Kent College of Law, etc. Cloth, half gilt; pp. 618; illustrated. Chicago: Fred Klein Company.

A doctor's life should have its recreations, the more because its work lies so much among disease and death, and the average physician turns nowhere so readily for his pleasures as to his books. For his lighter hours a volume like "Over the Hookah" will be invaluable, and that it needs to be taken in bits, picked up in the odd moments, to be fully appreciated, does not detract from its value. The book is like some culinary triumph that loses much of its delicacy and flavor if swallowed at one great gulp, but gives the most exquisite pleasure to the palate when eaten slowly, with all the proper accessories. It is emphatically a book for the leisure minutes, the brief snatches of time the doctor has when the reader would be wearied by a tale with an involved plot, or one whose thread is strung out through many chapters with no convenient "stopping-off" place. Dr. Lydston writes in a taking way, but experience with doctors' meetings and doctors' stories would lead one to think that possibly he has in reserve other tales somewhat different in style with which to formulate another volume.



**THE PRACTICE OF MEDICINE.** A Text-book for Practitioners and Students, with Special Reference to Diagnosis and Treatment, by James Tyson, M.D., Professor of Clinical Medicine in the University of Pennsylvania and Physician to the Hospital of the University; Physician to the Philadelphia Hospital, Fellow of the College of Physicians of Philadelphia; etc. Illustrated. Philadelphia: P. Blakiston, Son & Co. Price, \$5.50, cloth; pp. 1184.

Tyson's "Practice" is one of the most notable additions made within the year to medical literature. It bears internal evidence of careful research and great experience, and while on the whole conservative in its methods, is yet fully in the van of medical progress. There is not a chapter but is useful, not a line of treatment advocated but has been proved and found efficacious, while the means for diagnosing each disease and the reasons for using certain methods in treatment, are made sufficiently plain for the merest tyro, yet succinct enough for the busy practitioner. A certain gynecologist in explaining his preference for surgery over medicine, said that in the former there was always full demonstration of the case and its needs,—the operator knew what he was doing; while medicine was largely guess work—you heard a noise and threw things at it; it might be the right thing or the wrong, or it was as likely to miss as to hit. This objection can have no application to medicine as discussed in works like those of Dr. Tyson, where cause and effect and the physiologic relation of treatment are so clearly shown. The chapters upon the various febrile diseases and those upon disorders of the kidneys and the digestive tract are particularly valuable. The illustrations are excellent, the plate showing the character of the blood in leukemia particularly showing the results of research and comparison. The work bound in calf or morocco would be the most serviceable in a physician's library, as the cloth bindings are not likely to stand the constant use the volume would receive as a work of reference.

**THE PHYSICIANS' VISITING LIST.** Regular Edition for 1897. Philadelphia: Lindsay & Blakiston. For 25 patients, \$1; for 50 patients, \$1.25; 100 patients, 2 vols., \$2.25.

This list, known as "the old reliable," enters with this issue upon the forty-seventh year of its production, improved by condensing, simplifying and rearranging the mem-

oranda pages. At the end of the book are pages for special records of obstetric engagements, deaths, births, etc., with special pages for addresses of patients, nurses, etc., accounts due, cash account, and general memoranda. In front of the book is the following preliminary matter: Calendar, 1897-8; table of signs, to be used in keeping records; the metric system of weights and measures; table for converting apothecaries' weights and measures into grams; dose table, giving the doses of official and unofficial drugs in both the English and metric systems; asphyxia and apnea; table for calculating the period of utero-gestation; comparison of thermometers.

**THE INTERNATIONAL MEDICAL ANNUAL,** E. B. Treat, publisher, New York, is in press for issuance early this year. The prospectus shows a list of contributors comprising the names of upwards of forty physicians and surgeons of international reputation, and will present the world's progress in medical science. The volume will contain about 700 pages, and the price will be as heretofore, \$2.75. The value of the work will be greatly enhanced by the thoroughness of the illustration. A notable feature is a dictionary of new treatment, giving a complete index of diseases and the latest methods of treatment, medical and surgical, with about 6,000 references, the value of which is greatly enhanced by colored plates and photographic reproductions in black and white.

**HARPER'S MAGAZINE** for January has the following features: "Portuguese Progress in South Africa," by Poultney Bigelow; an instalment of "The Martian," by George du Maurier; "A Century's Struggle for the Franchise," by Professor Francis N. Thorpe; "Fog Possibilities," by Alexander McAdie; "Science at the Beginning of the Century," by Dr. Henry Smith Williams; "Literary Landmarks of Rome," by Laurence Hutton; "English Society," by George W. Smalley; "John Murrell and His Clan," by Martha McCulloch-Williams; "Indian Giver," a farce by W. D. Howells; "One Good Time," a tale of rural New England; "A Prize-Fund Beneficiary," by E. A. Alexander; and "In the Watches of the Night," by Brander Matthews.

**THE** Christmas number of *Harper's Weekly* was dated December 19, and contained short

stories by Howard Pyle, Captain Charles King, John Kendrick Bangs, and others, with illustrations by Howard Pyle, C. S. Reinhart, Frederic Remington, Peter Newell, Lucius Hitchcock, and A. I. Keller. The Christmas "Life and Letters," by W. D. Howells, was illustrated by Edward Penfield. During the month Col. George E. Waring, Jr., will continue his papers on "Street-Cleaning in European Cities." With the first number of the new volume two new serials begin: "Jerome, a Poor Man," a novel of New England life by Mary E. Wilkins, and "The Pursuit of the House-Boat," by John Kendrick Bangs, a sequel to his amusing story "The House-Boat on the Styx."

HARPER'S BAZAR had some notable Christmas features. Stories by Mary E. Wilkins and Elia W. Peattie, entitled respectively "An Unlucky Christmas" and "A Shylock of the Sandhills," were begun, with illustrations by Keller and De Thulstrup. A play entitled "One Disinterested Friend," by Caroline Ticknor, and a variety of papers telling of Christmas Dinners, Christmas Gifts, and Christmas Pleasures in general, rounded out the year.

THE REVIEW OF REVIEWS recently published several important and interesting articles on the latest phases of the Eastern Question, especially from the British point of view. W. T. Stead's survey of the subject, entitled "The Eastern Ogre; or, St. George to the Rescue," was extremely characteristic and suggestive; and a remarkable symposium of current thought on "What Should Be Done With Turkey?" as the pressing problem of the hour was of great interest.

SCRIBNER'S MAGAZINE inaugurates with its January number a "red letter year." The entire novelty of many of the plans for 1897 is noticeable. Charles Dana Gibson makes his debut as a writer in a series of papers entitled "London as Seen by Charles Dana Gibson." The first considerable novel by Richard Harding Davis, "Soldiers of Fortune," will hold the attention of readers, and many of the leading business men of the country will contribute either personally or through interviews to a beautifully illustrated series of articles on "The Conduct of Great Business." Of these, the following are already completed:

"The Great Department Store," "The Management of a Great Hotel," "The Working of the Bank," "A Great Manufactory." Under the title of "The Unquiet Sex," Mrs. Helen Watterson Moody will write a series of articles:—"Woman and Reform," "The College-Bred Woman," "Woman's Clubs," and "The Case of Maria" (a paper on domestic service). Other notable contributors are W. D. Howells and George W. Cable.

THE Christmas number of *The Chautauquan* appeared in a beautifully artistic cover, which bespoke the excellent reading attested by the contents table. Among the leading articles are: "A Century of French Costume," by Alice Morse Earle; "The French Character in Politics," by Prof. Charles F. A. Currier, M.A.; "Sunday Readings," selected by Bishop Vincent; "Cardinal Dazarin," by James Breck Perkins; "The French Revolution," by Prof. H. Morse Stephens, M.A.; "The Social Life of Ancient Greece," by Prof. Edward Capps, Ph.D.; "Socialism in England," by Giovanni Boglietti; A Symposium—"The Markets of Some Great Cities;" "Model Bedrooms," by The Family Doctor; "Woman's Work and Interest in the Berlin Trades Exposition." "The Editor's Outlook" discusses briefly "The Madonnas of Religion and Art," and "Good Roads and Good Morals." The department of Current History and Opinion presents a concise review of current events, and the usual space is occupied by C. L. S. C. work. The last ten pages are devoted to exhaustive reviews of the holiday publications, with illustrations from the various works—another attractive feature of the exceptionally happy make-up of this number.

PHYSICIANS' VISITING LIST FOR 1897. Philadelphia: P. Blakiston, Son & Company.

This has always been a very popular visiting list. A few minor changes have been made in it from last year, more pages have been added to the cash account and the general memorandum, and the back has been strengthened very materially. For a weekly list this one is very concise and complete indeed.

PETERSON'S is as bright and breezy as ever, and its attractively illustrated pages and low price make it a welcome visitor in every

family. It has not a dull page, yet the character of many of its articles place the magazine in a high rank as a public educator. The rapidly increasing subscription list attests the popularity of the journal.

NO BETTER home magazine is published than *The Century*. From its inception to the

present day its existence has been one of progress, the beginning of each year marking an advance on that preceding. Among its contributors are the leading writers of two Continents, while many of the brightest among the younger writers have taken their first start in literature from the cachet given their articles by publication in this magazine.

## PERISCOPE.

### Formulae.

FOR LUMBAGO.—A formula given by Martindale and Westcott is:

Atropine (more or less, p. r. n.)	gr. iv.
Oleic acid	℥j.
Castor oil	℥j.
Oil of lavender	mv.
Rectified spirit	q. s. ad ℥j.

*Medical Times and Hospital Gazette.*

A COD-LIVER OIL EMULSION.—For delicate children:

Ol. morrhuae	℥ij.
Liq. calcis sacch	℥ss.
Essentia cinnamomi	℥ss.
Glycerini	℥jss.
Aq. ad	℥vj.

M. Ft. Emulsio. Sig. A teaspoonful to a tablespoonful thrice daily after food, the bottle having first been shaken.—DR. J. W. MOORE.

FOR A SALOL DENTIFRICE:

Salol	℥ijss.
Saccharin	gr. vij.
Water	℥ss.
Oil of peppermint	℥j.
Oil of anise	mv.
Oil of fennel	mv.
Oil of cloves	mij.
Oil of cinnamon	mj.
Alcohol	to ℥vj.

Mix.

For a tooth-powder use cret. præcip. ℥xij in place of alcohol.—*American Druggist.*

TO NEUTRALIZE THE URINE IN ACUTE GONORRHEA:

Soda salicylat	℥ss.
Tinct. hyoscyami	℥ss.
Infus. digitalis	q. s. ad ℥ij.

A teaspoonful every four hours, well diluted in water.

This, I think, tends to neutralize the urine, as well as allay nervous irritability, and at the same time act as a diuretic.—JOHN D. BLAKE, M.D., in the *Maryland Medical Journal*.

FOR METRORRHAGIA:

Ferri sulph.	℥i.
Acid nitric	f 3j.
Pot. nitr	℥j.
Aquæ	℥ij.
Cinchonidiae	℥ij.
Syrupi	f 3ij. M.

DR. KEMPF in *Louisville Medical Monthly*.

FOR FURUNCLES OF THE EYELID:

Tincture of camphor,	} of each . . gr. xv.
Precipitated sulphur,	
Lime water,	} of each . . . . . ℥jss.
Rose water,	
Gum arabic	. . . . . gr. iij.

LANDOLT and GIGAX in the *Wiener Klinische Rundschau*.

FOR WORMS:

F. E. spigeliae	℥ijss.
F. E. sennae	℥jss.
Ol. anisi	gtt. v.
Ol. cari	gtt. v.
Syr.	℥iv.

M.

Dose: One or more teaspoonfuls at intervals until purging commences.—*Monthly Retrospect of Medicine and Pharmacy.*

PRURITUS ANI:

Menthol	4 parts.
Alcohol	30 parts.
Distilled water	60 parts.
Dilute acetic acid	150 parts.

For external use only.

Carbolic acid	5 parts.
Hydrated potassa	2 parts.
Linseed oil	30 parts.
Bergamot oil	9½ parts.

Apply at bedtime.

In very severe cases deep cauterization of the parts with nitrate of silver or the thermo-cautery may be employed. Section of the nerves gives good results in pruritus of the anus, vulva, and scrotum, when the affection is very intense.—CUMSTON in *Annals of Gynecology and Pediatrics*.

## FOR TAPE WORM:

℞ Olei terebinthinae.

Oleo resinae filicis maris . . . āā ʒvj.

Mucilag. acacie . . . . . ʒij.

M. Ft. Emulsion.

Sig.—Day before treatment, a milk or thin soup diet, and one drachm of compound jalap powder. The emulsion is taken the following morning, fasting, and a half hour later a dose of castor oil.

—F. A. A. SMITH, *Annual Universal Med. Sci.*

## FOR LOCAL ANESTHESIA:

Chloroform, } āā . . . . . ʒijj.

Tinct. aconit, } . . . . . ʒi.

Tinct. capsici, } . . . . . ʒi.

Tincture pyrethri, } . . . . . ʒi.

Ol. caryophylli, } āā . . . . . ʒss.

Gum camphor, } . . . . . ʒss.

Dissolve the camphor in the chloroform, add the oil of cloves, and lastly the tinctures.

This is credited with almost magical local anesthetic effect.—*Medical World.*

## FOR ACNE:

℞

Mag. sulph. . . . . ʒij.

Ferri sulph. . . . . gr. x.

Ac. sulph. dil. . . . . ʒij.

Aq. gaultheriæ . . . . . q.s. ʒiv.

M. Sig.—Tablespoonful in tumbler of water before breakfast.

Use in conjunction with

℞

Sulphuris præcip.

Pot. carb.

Glycerin.

Ungt. aquæ. rosæ . . . . . āā ʒij.

M. Ft. Ungt.

Sig.—Apply at night, rubbing well into the skin.—STELWAGON.

## NEWS AND MISCELLANY.

The Western Ophthalmological, Otolological, Laryngological and Rhinological Association meets in St. Louis, Mo., second Thursday and Friday of April, 1897. Physicians desiring to read papers are invited to send subjects to the secretary, Dr. Hal. Foster, Kansas City, Mo., at once. Railroads will give one and one-third fare on the certificate plan. The programs will be mailed February 1, 1897. The profession are cordially invited to attend.

The regular meeting of the Medical Section of the Buffalo Academy of Medicine

was held January 5. An evening devoted to insanity. Program: "Comparative Prevalence of Insanity," Dr. H. G. Hopkins; "Hereditry as a Cause," Dr. William C. Krauss; "Newer Pathology," Dr. H. Matzinger; "Symptoms of Incipient Insanity," Dr. James Putnam; "The State Care of the Insane," Dr. Floyd Crego; "Prognosis of Insanity," Dr. Arthur W. Hurd; "Newer Methods of Treatment," Dr. Harry A. Wood. "A Case of Syringo-Myelia" was presented by Dr. Crego.

A normal case of labor in a primipara lasting only twenty minutes, is reported by Dr. R. M. Lutton, of Grand Rapids, Mich., in the *Medical Counselor*, with the remarkable feature that there was not the slightest pain of any kind from first to last. The patient stated that she had been drinking "squaw-root tea" for four or five months. She had gathered the fresh roots in the woods, and steeped them in water, and had taken a drink of this tea twice a day. Dr. Lutton appears to think this might have effected the painlessness of the confinement.

Every physician will be interested in the results of experiments made by the Society of Engineers in France on the use of pneumatic tires on vehicles. The following table shows the draft of similar carriages in pounds:

	Through Mud.		Through Snow.	
	Pneumatic Tire.	Iron Tire.	Pneumatic Tire.	Iron Tire.
Carriage empty, at a walk.....	23.1	35.2	25.2	35.9
Carriage load'd 660 lbs., at a trot	31.2	50.7	39.5	68.6

Tests were made over all kinds of road—paved and ordinary roads, and showed conclusively that the pneumatic tire saved from 30 per cent. to 50 per cent. of the pulling power.

## Leigh Hunt Adapted to Modern Science.

Jenny kissed me when we met,  
 Jumping from the chair she sat in,  
 And I knew that I should get  
 All those things they name in Latin.  
 Not an ochlorophyllous,  
 Not a bacillus, has missed me—  
 Microbes, germs, and all because  
 Jenny kissed me.